



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

lu

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,861	10/12/2001	Jae-Gyun Shim	SUN-0015	9834
23413	7590	06/09/2004	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			PERT, EVAN T	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/975,861

Applicant(s)

SHIM ET AL.

Examiner

Evan Pert

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 1 through 3 should be designated by a legend such as --Prior Art-- because only that which is admitted as (prior art) "Conventional Art" is illustrated. By labeling Figs. 1 through 3 as "Prior Art," or "Conventional Art," a reader can more readily identify features of applicant's claimed invention when reviewing the patent. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to this Office action. Each replacement sheet should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures.

Specification

2. The disclosure is objected to because it contains minor grammatical informalities, understandably likely arising from a less-than-perfect translation. While the English-translated-from-Korean patent application contains grammatical errors and stylistic awkwardness in places, the examiner is able to understand the written description by careful review including inspection of the drawings.

The examiner does not have adequate time to thoroughly identify all grammatical informalities and suggest appropriate corrections; instead, applicant is asked to conduct a thorough review of the application for the purpose of preparing a substitute specification or amendment paper. Some of the more blatant improper use of grammar can be summarized as:

Grammatically improper "user tray deliver" is used to mean --user tray deliverer-- (abstract, p. 4, 5, 7, 9, 14, 15, 16, etc.).

Plurality of articles is inconsistent: For example "a...devices," "On the other hands," and "devices is transferred" at p. 3, are not proper English. Other examples such as "test heads...is" at p. 5, "devices is picked up" at p. 17, "a...condense robots" at p. 13 [condense?], "a predetermined steps" at p. 10, etc. etc.

The use of "an" and "a" is interchanged to form improper grammar. For example, at p. 13, "an unit" and "an decided," and "an front" at p. 17 are grammatical errors.

Some passages contain typographical errors. For example, a "fist sensor" at p. 11 is undoubtedly meant to read "first sensor." Likewise, "socked of the test heats" at p. 4 must surely more likely be meant to read "socket(s) of the test head(s)." The "se-soak chamber" at p. 21 should read "de-soak chamber", etc..

Some passages contain misuse of words. For example, the robots do not "adsorb" devices as written at p. 3, they employ suction to pick and place, but do not chemically "adsorb." At p. 7, the word "repair" seems improper since "to repair" means —to fix that which is broken—.

Some passages have improper verb tense. For example, "...handler that increase..." and "...that can combines," at p. 6 should read , "...handler that increases..." and "...that can combine," respectively. Improper verb tense renders the second to last paragraph of "SUMMARY OF THE INVENTION" grammatically improper.

Some passages have other grammatical informalities. For example, the 2nd sentence of the 2nd to last paragraph at p. 6 is grammatically improper.

Not all grammatical errors in the specification are noted above, so applicant's assistance in identifying and correcting *all* the informalities by amendment is requested.

Applicant is also invited to make stylistic changes that improve the quality of the readability of the text, but is not required to meet any particular style; however, the examiner does require the specification to be grammatically proper so that the application may issue into a quality patent.

The examiner understands disclosure of the invention by the specification despite the significant number of minor grammatical informalities, mostly because the grammatical informalities are truly minor, but also because the drawings are particularly clear and informative.

Claim Objections

3. Claims 1-19 are objected to because of grammatical informalities, presumably introduced during translation from Korean. The claims could be placed in acceptable form, for example, by an amendment adopting the following changes:

In claim 1, line 2, change the 2 occurrences of "device" to each read —devices--.

In claim 1, delete "the" before "test results".

In claim 1, line 6, delete "a predetermined amount of".

In claim 1, line 7, change "deliver" to —deliverer—and delete "the" before "classified".

In claim 1, line 10, change "device" to "devices".

In claim 1, line 11, change "means for" to —mechanism for—and change "device in the" to —devices in a--.

In claim 1, line 12, change "the test tray" to —a test tray--.

In claim 1, line 13, change "inverter changing a horizontal posture of the" to – inverter for changing a horizontal position of a--.

In claim 1, line 14, change "device" to –devices--.

In claim 1, line 15, change "chamber preparing" to –chamber for preparing--.

In claim 1, line 16, change "and transferring" to –and for transferring--.

In claim 1, line 17, change "and discharging the test trays" to –for discharging test trays--.

In claim 1, line 18, change "chamber accomplishing test while connecting the semiconductor devices in the two test trays" to –chamber for accomplishing electrical testing of the semiconductor devices in the two test trays".

In claim 1, line 19, change "and maintaining" to –and for maintaining--.

In claim 1, line 21, change "chamber restoring the devices temperature while arranging the test trays" to –chamber for restoring device temperature while arranging test trays".

In claim 1, line 23, change "inverter inverting the test tray" to –inverter for inverting a test tray--.

In claim 1, line 25, change "means transferring" to –means capable of transferring--.

In claim 3, line 4, change "lifting" to –capable of being lifted—and change "loading the" to –capable of being loaded with--.

In claim 4, line 2, change "cylinder discharging the loader blocks" to –cylinder for discharging loader blocks--.

In claim 4, line 4, change "guide guiding" to –guide for guiding--.

In claim 5, line 2, change "deliver of the user tray during test operation" to –
delivery of user trays during operation--.

In claim 5, lines 3-4, change "supplier and loading the user trays" to "supplier for
loading user trays--.

In claim 5, line 4, change "loading the user" to –loading user--.

In claim 5, line 6, change the two occurrences of "deliver" to –deliverer--.

In claim 5, line 7, change "transferring the user tray of the user tray deliver" to –
capable of transferring a user tray of the user tray deliverer--.

In claim 6, line 3, change "the user tray" to –user tray--.

In claim 6, line 4, change "arm transferring sequentially the user tray" to –arm for
sequentially transferring a user tray--.

In claim 6, line 6, change "between the loading" to --between a loading--.

In claim 6, line 7, change "the loading side tray arranging station placing the test
tray" to –a loading side tray arranging station placing a test tray--.

In claim 6, line 8, change each of the three occurrences of "the" to –a--.

In claim 8, line 2, change "arm, moves" to –arm, and moves--.

In claim 8, line 3, change "the user tray, and moves slower than the" to –a user
tray, and moves slower than a--.

In claim 10, line 2, change "transfer shifting" to –transfer shifting mechanism for--

In claim 10, line 4, change "transfer lifting" to –transfer lifting mechanism for--.

In claim 11, line 1, change "transfer comprises" to –transfer mechanism comprises--.

In claim 11, line 2, change "distance that" to –distance such that--.

In claim 11, line 5, change "while the cam" to –when the cam--.

In claim 12, line 2, change "loading the test tray of" to –loading test trays of--.

In claim 12, line 3, change "transferring the test tray of" to –transferring test trays of--.

In claim 14, line 7, change "the devices of the" to –devices of a--.

In claim 15, line 3, delete "by combing".

In claim 16, line 2, delete "condense" and change "the devices on the test tray" to –devices on a test tray--.

In claim 16, line 6, delete "condense".

In claim 16, line 7, change "robot transferring the devices stored in the sorter tables" to –robot for transferring devices stored in sorter tables--.

In claim 16, line 8, change "the unit amount and the decided class" to –a unit amount and a decided class".

In claim 16, line 11, change "deliver" to –deliverer--.

In claim 16, line 13, change "deliver when the" to --deliverer when--.

In claim 19, line 2, change "sorting the devices" to –sorting devices--.

While the above corrections would be acceptable to obviate the objection to the claims, alternative claims of comparable scope may also be presented in response to this Office Action. Appropriate correction is required.

Allowable Subject Matter

4. Claims 1-19 are objected to for grammatical informalities as identified above, but are otherwise allowable.

5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose applicant's test handler exemplified by Figs. 5 and 6, with an exemplary particular positioning of trays during handling and conveyance depicted in the flow diagram of Fig. 13.

Particularly, applicant's test handler can be distinguished from the prior art by soak and de-soak chambers in which user trays are positioned vertically while the user trays are inverted to be positioned horizontally for electrical testing in test trays.

The particular conveyance arrangement claimed provides a number of advantages [pages 5-7], including a test handler with more compact footprint as depicted in Fig. 6.

6. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

7. This application is in condition for allowance except for the following formal matters:

- Provide amended or substitute specification in proper grammatical form.
- Provide an amended claim set in proper grammatical form.
- Provide revised drawing indicating Figs. 1 through 3 as "Prior Art" or "Conventional Art".

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

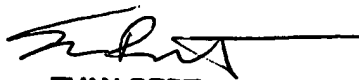
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evan Pert whose telephone number is 571-272-1969. The examiner can normally be reached on M-F (7:30AM-3:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2829

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ETP
June 4, 2004



EVAN PERT
PRIMARY EXAMINER